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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,947	05/23/2001	Victor Wai Leung Lee	225133600010	1012

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EXAMINER	
LAO, TIM P	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/863,947	LEE ET AL.	
	Examiner	Art Unit	
	Tim Lao	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuhn et al. (U.S. Patent 6,029,132).

Claim(s)	
1	Kuhn et al. disclose: A computer-implemented dynamic pronunciation system (see Abstract) comprising: a first dictionary storage unit that contains word pronunciation rules; (col.1, ll.10-15) a dictionary generation unit (Text-Based Pronunciation Generator, Fig.1: **16**) connected to the first dictionary storage unit that determines a first set of possible pronunciation rules (Fig.1: **18**) for a pre-selected word (e.g., 'read' of the input sequence **14**, col.2, ll.51-59); (col.2, ll.66-67; col.3, ll.1-6; col.4, ll.30-38) and *{The pronunciation generator **16** uses a pronunciation dictionary within to generate the set of pronunciation rules **18**. (see col.1, ll.10-15)}* a neural network (Phoneme-mixed tree score estimator, Fig.1: **20**) whose structure accepts word spelling (Input sequence, Fig.1: **14**) as an input and generates at least one pronunciation rule (Fig.1: **22**) as an output, wherein the pronunciation rule (Fig.1: **22**) from the neural network is used within the first set of possible pronunciation rules (Fig.1: **18**) for the pre-selected word (e.g., 'read', col.3, ll.26-28) to form a pronunciation dictionary (col.5, ll.62-

	67; col.6, ll.1-8). (col.2, ll.18-34)
Claim(s) 2	Kuhn et al. disclose: The computer-implemented dynamic pronunciation system of claim 1 wherein the neural network generates pronunciation rules that contain accent (e.g., stress or dialect dependent) pronunciation rules. (dialect dependent: Fig.2: **38**, col.3, ll.41-46; stress: col.4, ll.10-14; col.5, ll.49-56)
Claim(s) 3	Kuhn et al. disclose: The computer-implemented dynamic pronunciation system of claim 2 wherein the accent pronunciation rules map phonemes to a spelled word. (Fig.2; col.3, ll.60-67; col.4, ll.1-10)
Claim(s) 4	Kuhn et al. disclose: The computer-implemented dynamic pronunciation system of claim 2 wherein the accent pronunciation rules map different sets of phonemes (Fig.1: **22**) to the pre-selected word (e.g., 'read'). (col.5, ll.33-61) *{The list **22** represents a set of possible pronunciations in terms of phonemes for the spelling of the words, e.g., 'read' of the input sequence **14**. The set of possible pronunciations is ranked by scores.(see Abstract)}*
Claim(s) 5	Kuhn et al. disclose: The computer-implemented dynamic pronunciation system of claim 2 wherein each of the sets of phonemes (Fig.1: **22**) represent a different speaking accent (e.g., stress or dialect dependent). (col.5, ll.49-56) *{The list **22** generated includes stress information of the dialect-dependent input sequence **14**.}*

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn et al. (U.S. Patent 6,029,132) in view of Junqua et al. (U.S. Patent 6,314,165 B1).

Claim(s) 6	Kuhn et al. do not show: The computer-implemented dynamic pronunciation system of claim 2 further comprising: at least one language model that has been constructed from the accent pronunciation rules. Howver, Junqua et al. teach: a language model (e.g., Model Trainer, Fig.2: 46) that has been constructed from the accent pronunciation rules (Fig.2: **44**; Fig.3: **84**). (col.5, ll.50-67; col.6, ll.1-7) Since the combined arts are analogous, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the pronunciation system of Kuhn et al. to include the language model of Junqua et al. in order to apply accent pronunciation rules to a language model of a speech recognition system. The combined arts find useful application in automated speech recognition. (see Abstract of Junqa)
Claim(s) 7	The combination of Kuhn et al. and Junqua et al. would show: The computer-implemented dynamic pronunciation system of claim 2 wherein the language models are hidden Markov language recognition models. (Junqua: Fig.2: **46**; col.5, ll.61-67)

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Documents:

[1] 6,411,932 B1 06/2002 Molnar et al.

[2] 6,272,464 B1 08/2001 Kiraz et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Lao whose telephone number is 703-305-8955. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Lao
Examiner
Art Unit 2655

TL
03/20/04

DORIS H. TO 3/22/04
SUPERVISORY PATENT EXAMINER
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